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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,729	09/22/2003	Arthur G. Mateos	12257/56086	9687

7590 01/10/2007  
Attn: Christopher F. Regan  
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.  
P.O. Box 3791  
Orlando, FL 32802-3791

EXAMINER
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MOSS, KERI A

ART UNIT	PAPER NUMBER
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1743

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/667,729	<b>Applicant(s)</b> MATEOS ET AL.	
	<b>Examiner</b> Keri A. Moss	<b>Art Unit</b> 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/12/04; 12/29/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-9, 15 and 20-21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the difference is between an inline connection and an online connection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims **1-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lund, Eric D. and Shaw, Philip E. (Gas-Liquid Chromatographic Determination of Limonene in Orange Juice, J. Assoc. Off. Anal. Chem. Vol. 62, No. 3, pgs 477-481 (1979)) in view of Sivavec et al (USP 6,485,688). Lund and Shaw teach a method of determining the level of a volatile oil in a citrus processing stream comprising transferring a sample containing the volatile oil from the endpoint of the processing stream (page 477, 2<sup>nd</sup> paragraph last sentence) into a sparging chamber (Fig. 2); sparging the sample and thereby generating a positively pressurized vapor containing the volatile oil (page 478 right column 2<sup>nd</sup> paragraph); transferring the positively pressurized vapor into an analyzing station (page 478 right column 3<sup>rd</sup> paragraph); and analyzing the vapor to determine the level of the volatile oil in the processing stream (page 478 right column 4<sup>th</sup> paragraph). Analyzing the vapor comprises gas chromatography (p.477, 2<sup>nd</sup> paragraph). The sample is a fruit product, orange juice,

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and the volatile component is limonene (abstract). Sparging the sample comprises bubbling nitrogen gas through the sample at a flow rate of 60-70 ml/min (p.478, right column 2<sup>nd</sup> paragraph), which falls within applicant's claimed range. Limonene is a degradation product of vegetable oils such as Fennel oil.

Regarding claims 18 and 23, Lund and Shaw do not expressly teach diluting the sample with a liquid prior to sparging the sample. However, diluting a sample is a result-effective variable, which is one that has well-known and expected results. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) teaches that optimization of a result-effective variable is ordinarily within the skill of one in the art. Varying the concentration of the analyte in a sample has the well-known and expected result of meeting the criteria of the analytical apparatus and equipment used. Therefore, it would have been obvious to one of ordinary skill in the art to modify Lund and Shaw by selecting the proper sample dilution, volume or concentration in order to meet the requirements of the apparatus and equipment being used.

Lund and Shaw do not teach transferring the sample from a processing stream to the sparging container through an online connection. Sivavec teaches an on-line sparging sampling and monitoring method (abstract) in which the sample is transferred from a processing stream or a waste stream (paragraph bridging columns 3 and 4) to the sparging chamber through an online connection (Fig. 1 part 20). Sivavec teaches that the online sparging sampling method prevents diminishing of the value of the sample (column 1 lines 32-38). When samples are collected without an online system, time delays occur and the delay results in the sample not reflecting the actual and real-

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time values of the analyte in the processing stream (column 1 lines 32-38). Therefore, it would have been obvious for one of ordinary skill in the art to modify the sparging method of Lund and Shaw with the online sampling method of Lund and Shaw in order to monitor the value of an analyte in a processing sample and to ensure accurate and real-time readings of the analyte in the sample.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keri A. Moss whose telephone number is 571-272-8267. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700

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Keri A. Moss  
Examiner  
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KAM 1/2/06